

Board of Governors of the Federal Reserve System

**REPORT ON THE
AUDIT OF THE ADMINISTRATIVE
SYSTEMS AUTOMATION PROJECT**



OFFICE OF INSPECTOR GENERAL



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

OFFICE OF INSPECTOR GENERAL

February 5, 1997

The Honorable Alice M. Rivlin
Vice Chair and Administrative Governor

We are pleased to present our *Report on the Audit of the Administrative Systems Automation Project* (A9609). We performed our audit to document the project status as of July 31, 1996, assess the reasonableness of the project's future direction, and assess the efficiency and effectiveness of project implementation at the strategic and project-management levels.

As described in the report, we believe that the project team has overcome numerous obstacles and has made strides toward achieving the project's stated objective of meeting the Board's current and future administrative information requirements. We are concerned, however, that the team may not be able to achieve its remaining strategic objectives efficiently and effectively. Our report contains seven recommendations aimed at helping the project to attain its short-term goal of implementing the initial suite of human resource applications on June 30, 1997, and to facilitate the remaining development and implementation efforts once the core human resource applications go into production.

The Staff Director for Management provided us with a response to our draft report (see appendix 1). The response, which the staff director coordinated with you, indicates general agreement with our seven recommendations. We plan to follow up on implementation of our recommendations and report any exceptions as part of our future audit activities.

We are sending a copy of this report to each member of the Board and to the heads of the Board's offices and divisions. We are also making the report available on our web page. It is available to the public and a summary will appear in our next semiannual report to the Congress.

Sincerely,

A handwritten signature in black ink, appearing to read "Brent L. Bowen", is written over a horizontal line.

Brent L. Bowen
Inspector General

Enclosure

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EXECUTIVE SUMMARY

The Administrative Systems Automation Project (ASAP) is a multiyear effort to replace the Board's financial, human resource, and other administrative management systems with primarily commercial off-the-shelf software designed to run in a distributed processing environment. The project is the first distributed processing platform that can be accessed Boardwide and, when fully implemented, will facilitate the processing of administrative transactions and give managers better information about their operations. The software that has been selected will also facilitate compliance with recent legislation concerning electronic funds transfer (EFT) transactions, eliminate concerns about the "year 2000" transition, and be able to take advantage of Internet technology. The new system has and will continue to require a substantial commitment of financial resources. From the project's inception in 1992 through 1996, the Board will have spent about \$5 million on ASAP acquisition, development, implementation, operations, and maintenance; projections are that the Board will spend an additional \$2.7 million on the system through the end of 1998, the projected final year of the development effort.

We performed this audit to (1) document the project status as of July 31, 1996, and assess the reasonableness of future project direction, and (2) assess the efficiency and effectiveness of ASAP implementation at the strategic and project management levels. Although we reviewed project history, we focused on identifying impediments to ASAP's future success and proposing corrective actions to help ensure an efficient and effective transition to the new system.

Audit Results

Over the life of the project, the ASAP team has overcome numerous obstacles and has made strides toward achieving the project's stated objective of meeting the Board's current and future administrative information requirements. We are concerned, however, that the team may not be able to achieve its remaining strategic objectives efficiently and effectively. Specifically, we concluded that

- senior management involvement has been insufficient;
- processes for tracking cost, schedule, and project status are not effectively integrated;
- the project's schedule for the next two years is extremely ambitious;
- functional users are not fully involved and business processes are not being reengineered to take advantage of opportunities to streamline processes;
- communication processes with end users have not been effective;

- business resumption planning has not been finalized; and
- change control processes have not been formalized.

Our review of reference literature and discussions with other organizations have shown that several of these issues, particularly the low level of senior management support and lack of sufficient user involvement, are common problems in information technology projects. We are especially concerned, however, that these issues had surfaced during previous reviews but were not adequately addressed. If left unresolved, we believe these problems will cause additional project delays and prevent a smooth transition to the new administrative architecture.

The project's current short-term focus is to implement the initial suite of human resource applications on June 30, 1997, and we believe this should remain the project's primary concern.¹ Our recommendations are therefore aimed at helping to attain this goal and to facilitate the remaining development and implementation efforts once the core human resource applications go into production. Specifically, we recommend that

- the Board strengthen senior management commitment to the project by (1) developing a project charter, approved by the Administrative Governor, for the remaining development and implementation efforts, (2) establishing a management steering committee with oversight responsibilities, and (3) reevaluating the project's organizational placement;
- the Administrative Governor ensure that processes are implemented to (1) integrate and track the cost, schedule, and functional status of ASAP and ASAP-related systems over the remaining life of the project, and (2) provide Board members with executive-level information that will assist them in monitoring the Board's investment and progress toward achieving ASAP's strategic objectives;
- the Administrative Governor review the ASAP project schedule for remaining development and implementation efforts to ensure that sufficient time is provided to analyze user requirements and determine the extent that software functionality matches current business practices, given current staffing levels and work in process;
- the Staff Director for Management designate project leaders from their functional areas to co-lead, with the ASAP team leader, the implementation of the remaining ASAP systems, modules, and enhancements with the objectives of (1) achieving full functional user involvement in and acceptance of the ASAP projects and (2) promoting business process reengineering;

¹During our audit, the ASAP team revised the implementation date from March 30, 1997, to June 30, 1997.

- the ASAP team develop and implement a communication plan and marketing strategy to ensure that end users are adequately involved in and remain informed about the development and implementation of remaining ASAP modules and planned enhancements;
- the ASAP team complete development and testing of their Business Resumption Plan (BRP) to ensure all potential contingent situations are addressed; and
- the ASAP team formulate an integrated, comprehensive change control process to ensure that programmer/analysts' access to application and system software and data is properly controlled.

Although our recommendations are designed to address longer-term project management issues, we believe that several recommendations—particularly recommendations 1, 4, and 5—can be implemented immediately to address potential obstacles to meeting the June 30 implementation goal.

Analysis of Comments

We provided a draft copy of this report to the Staff Director for Management for his review and comments. The staff director's response, which he coordinated with the Administrative Governor, indicates general agreement with the seven recommendations and discusses actions that have been or will be taken to implement the recommendations (see appendix 1, page 29).

BACKGROUND

Project Overview

The Board of Governors of the Federal Reserve System (the Board) uses a variety of automation resources to fulfill its mission and achieve its strategic goals. The Board's automation environment includes an IBM mainframe located in the Board's data center, individual local area networks and client/server platforms within the Board's divisions and offices, and a communications network connecting the Board's offices. Because of the declining costs and improved performance of personal computers and workstations, users at the Board are increasingly migrating critical applications and other processes from the mainframe to distributed processing environments.

The Administrative Systems Automation Project (ASAP) is a multiyear effort to replace the Board's financial management, human resource management, and other administrative systems with primarily commercial off-the-shelf (COTS) software designed to run in a distributed processing environment. When fully implemented, the system will serve several groups of Board customers: (1) operations staff in the Office of the Controller (OC), Divisions of Human Resources Management (HRM), Information Resources Management (IRM), and Support Services (SS) who will use the system to carry out their daily administrative support functions; (2) administrative support staff in offices and divisions throughout the Board who will use the system to process financial, human resource, and procurement transactions; (3) directors, officers, and managers who will use information generated by the system to supervise and manage their units; and (4) Board staff who may eventually use the system to process administrative transactions.

Project History

In 1991, a Board project team conducted a study for the Administrative Data Steering Group (ADSG) to determine the feasibility and advisability of replacing the Board's mainframe-based Financial Management System (FMS) with a new system designed to run in a distributed processing environment.² FMS was a collection of mainframe computer application systems, most of which were initially developed in the early 1970s. The study concluded that the project was feasible and would produce numerous benefits to the Board, including a significant decrease in annual operating costs for automation, increased staff productivity relating to administrative activities, and improved decision-making, reporting, and management capabilities resulting from implementation of an integrated financial management system. The study also projected that implementation of the new financial system would require about ten months.

²The ADSG was formed in 1983 to act as a coordinating body for administrative data and information management matters in the administrative areas of the Board's operations (personnel, payroll, financial management, and other support services). Representatives from the Office of the Staff Director for Management (OSDM), OC, SS, and HRM serve on the ADSG.

The project was originally funded in 1992 as an enhanced decision package in the OC budget with about \$295,000 in capital funds and \$48,000 in operating funds.

During 1992, the Board recognized the benefits to be realized by upgrading and modernizing the Board's automated systems in other administrative areas, and the project's scope was broadened to encompass all Board administrative systems, including the personnel and payroll functions performed by the Board's Administrative Information Retrieval System (AIRS) and the various automated systems used to manage and perform the support services functions. The project was named the Administrative Systems Automation Project to reflect the broader scope.

In late 1992, the Board issued a Request for Proposal (RFP) for a qualified vendor to provide a fully integrated family of financial and human resource management applications. The RFP anticipated that COTS software would be used to provide almost all of the desired functionality; additional functionality would be provided by customized programming or changes in Board processes. However, the RFP noted that, though some process modifications were possible, it was not the intent of the Board to revise totally its procedures to meet this requirement, and that the vendor should make every effort to accommodate the Board's existing business environment. The procurement process was protested before a contract could be awarded and, as part of the protest settlement, the Board canceled the procurement action and agreed to reissue the RFP.

The second RFP, issued in June 1993, was essentially the same as the 1992 version. The primary change concerned integration support, which was set in the new RFP at a fixed number of hours rather than asking vendors to provide an estimated level of support. The required functionality section of the new RFP also contained several changes. Although the requirements still included financial and human resource management applications, other applications such as travel, inventory control, and IRM's user charge system, which had been optional modules in the original RFP, were excluded from the second RFP.³

In August 1993, the Board awarded a contract to a single vendor for \$955,000 to furnish the hardware, database management system, application software, hardware and software maintenance, project management, security, training, documentation, and integration support for the ASAP system. Work began on the project during 1993 with an original expected completion date of April 1995. However, vendor performance during late 1993 and early 1994 led to project delays, and the Board contracted with other vendors to provide integration support as well as selected hardware and software. During 1994, the team devoted its efforts to implementing the financial applications.

The initial suite of financial applications (general ledger, accounts payable, and purchasing) and the underlying database went into production on January 1, 1995.

³The second RFP still included requirements for applications covering the general ledger, accounts receivable, accounts payable, purchasing, fixed assets, program analysis and budget, position management, payroll, compensation policy, benefits, recruiting, employee relations, leave, employee training, performance management and evaluations, and equal employment opportunity.

Since the initial cutover, the ASAP team has also implemented a customized accounts receivable tracking system and a customized budget system, and constructed a data warehouse of Boardwide financial information.⁴ During 1997 and 1998, the team expects to implement fixed asset and travel software, enhance the budget and accounts receivable applications, implement the requirements of the new electronic funds transfer (EFT) legislation, and develop an executive information system (EIS) for the financial applications.⁵

Regarding the human resources applications, the Board signed contracts directly with PeopleSoft in late 1994 for the application software and for integration support. The ASAP team worked with HRM personnel and contractors during 1996 to document the Board's human resource processes, develop the software, and prepare for testing and staff training. The initial suite of PeopleSoft applications, expected to be placed in production on June 30, 1997, will include compensation, benefits, payroll, and a customized leave system.⁶ During the remainder of 1997, the ASAP team expects to implement the training and health services components of PeopleSoft, complete full data conversion from the AIRS mainframe system, and provide integration support to software acquired for recruiting and equal employment opportunity. Future initiatives include a human resources EIS and added functionality for personnel budgeting and worker's compensation. All development work on ASAP is projected to be completed during 1998.

Additional applications, which were previously a direct part of ASAP, are now being developed and implemented by the responsible functional area; in our report, we refer to these applications as "ASAP-related systems." For example, IRM has responsibility for the replacement of its User Charge System, and SS has responsibility for implementing software to process publications and subscriptions. As these other systems are implemented, the ASAP team will assume responsibility for integrating them with the central database.

Project Organization and Structure

Although ASAP encompasses all functional areas of responsibility under the Office of the Staff Director for Management (OSDM) and is sponsored by the staff director, project management responsibility remains with the ASAP team under the OC (see figure 1).

⁴A "data warehouse" is a repository that holds read-only data obtained from one or several databases. The data warehouse allows different applications to access and manipulate the data stored in it.

⁵In April 1996, Congress passed legislation requiring that all federal payments, including wages, salaries, and vendor payments, be made electronically. Although the Board is not subject to the requirements of the legislation, the Board intends to comply with the requirements.

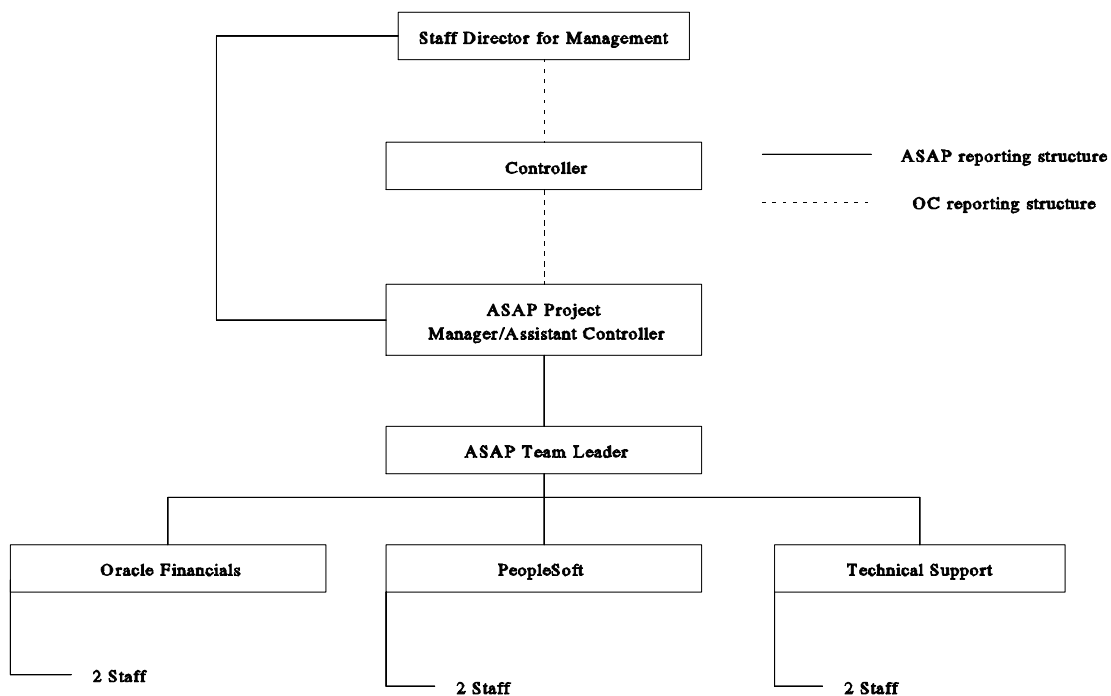
⁶During our audit, the ASAP team revised the implementation date from March 30, 1997, to June 30, 1997.

ASAP's objectives include

- proactively assisting in the use of technology to meet the changing administrative information management needs of the Board and its divisions and offices as expressed in their strategic plans;
- keeping Board administrative systems abreast of current technology and its application to the Board's business environment;
- providing the strategic applications, computing resources, configuration management, and data management functions for all ASAP-related systems; and
- providing adequate contingency and backup and recovery planning;

The Assistant Controller for Finance and Accounting serves as the project manager, while day-to-day operational responsibilities rest with the ASAP team leader. The ASAP program has an authorized staff of six full-time positions with expertise in the specific software products as well as general business practices. As modules are developed and implemented, the ASAP team works with user community representatives to address their requirements and with IRM to resolve infrastructure and connectivity issues. The team serves as a liaison to the user groups and is responsible for ensuring that current and historical information is available in a user-friendly, consistent format. In addition, the team receives contractor support for development and implementation efforts, although system maintenance is a responsibility of the ASAP team.

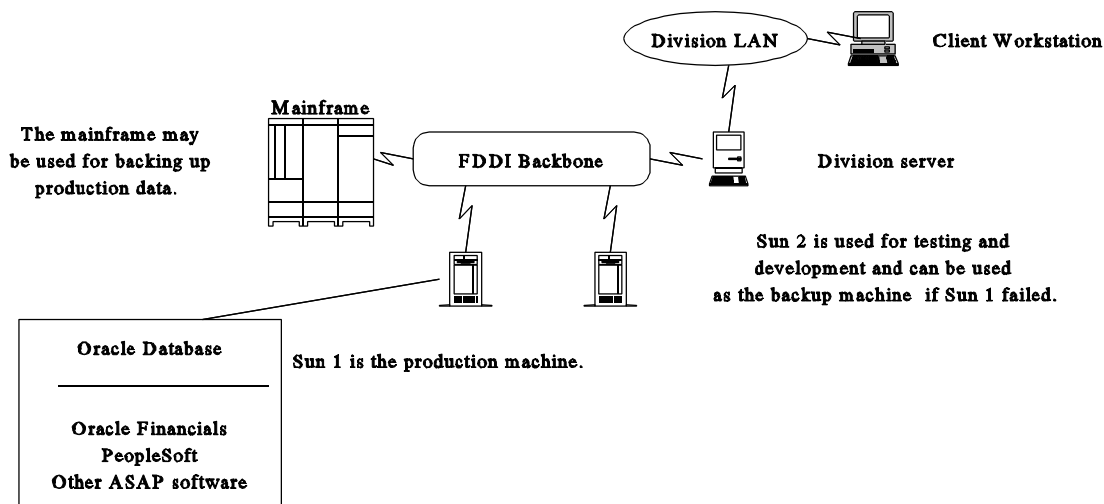
Figure 1
Current ASAP Organization



ASAP Hardware Configuration

The Board purchased initial computer hardware and an associated operating system as part of the original ASAP contract. At that time, the vendor selected by the Board was the primary industry platform for developing Oracle financial software. In early 1995, the ASAP team realized that the original hardware was not sufficient to handle the financial applications with acceptable performance and the Board purchased a second, larger computer to act as the production machine. The smaller machine became the test and development platform and also provided a level of backup and recovery. In mid-1996, the ASAP team, in coordination with IRM, performed a review of the relative merits of continuing to support the current ASAP platforms versus migrating to the Board's de facto Unix-based hardware standard, Sun Microsystems (Sun). The review showed that Sun equipment was cheaper to acquire and maintain and that technical knowledge of Sun equipment and its operating system, Solaris, already resided in IRM; as a result of the review, the team decided to migrate ASAP applications to Sun equipment. The Board acquired two Sun minicomputers—one to be used as the production machine and the second to be used as a test/development machine and to permit backup of the main processing machine. Backup is accomplished by taking a snapshot of the production machine which is copied to the test/development machine (see figure 2). In the event of a contingency situation, current planning calls for system restoration in the Baltimore Branch of the Federal Reserve Bank of Richmond.

Figure 2
ASAP Connectivity Scheme



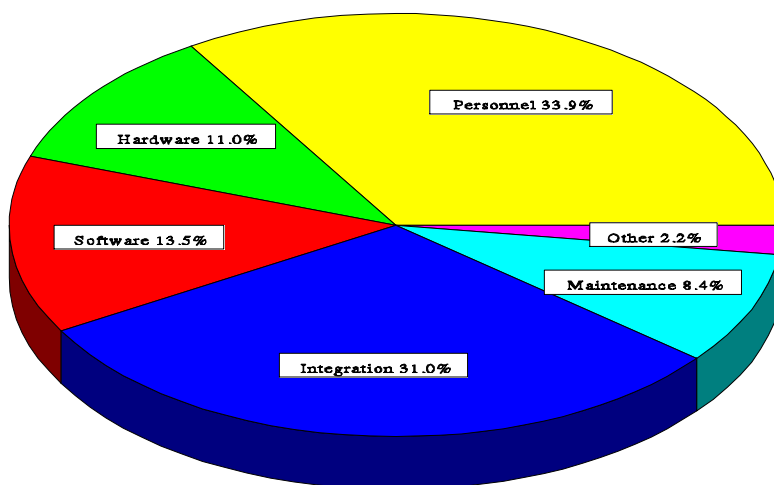
The database and ASAP application software share the same production machine. ASAP-related software will access the Database from the division server or client workstation.

Cost and Budget Data

Consistent with the Board's budget procedures, the costs for acquiring, developing, and implementing ASAP have been budgeted and tracked on an incremental basis (i.e., annual rather than project life-cycle). From 1992 to 1993, budget and expense data for ASAP were captured under "Program Direction" in the OC budget. In its 1994 budget submission, the OC designated ASAP as a separate program within the division. As such, ASAP cost and budget information receives greater visibility because the budget is presented in more detail and is subject to mid-year and year-end performance reporting. ASAP is also a separate cost center within the financial system, which allows tracking of costs directly related to the project.

From 1992 to 1996, the Board will have spent about \$5 million on ASAP acquisition, development, implementation, operations, and maintenance. (A breakout of ASAP actual expenses as of October 31, 1996, is shown in figure 3.) Current projections are that the Board will spend an additional \$2.7 million on ASAP through the end of 1998, the projected final year of the development effort. Therefore, total acquisition, development, implementation, operations, and maintenance costs through full implementation are projected to be nearly \$8 million. Table 1 and figure 4 reflect the annual ASAP costs by budget categories (operations and capital) as reflected in the Board's financial records. Table 2 and figure 5 reflect the annual costs by use of the funds (operations versus development) as categorized by the ASAP team⁷. Because the Board does not use project accounting, we were unable to verify the team's breakdown.

Figure 3
Breakout of Actual ASAP Costs Through October 31, 1996



⁷We note that slight differences exist between the annual figures per the financial records and the ASAP team's breakout. We were unable to substantiate the reasons for these differences, but we do not believe they are significant enough to distort the comparison.

Table 1
Annual ASAP Costs by Budget Category
(Cash Outlay Basis Unless Otherwise Noted)

Year	Operations	Capital	Total Annual	Cumulative Total
1992	\$48,000	\$295,332	\$343,332	\$,343,332
1993	\$173,661	\$154,400	\$328,061	\$671,393
1994	\$422,788	\$874,139	\$1,296,927	\$1,968,320
1995	\$780,497	\$612,430	\$1,392,927	\$3,361,247
1996(1)	\$1,033,373	\$568,000	\$1,601,373	\$4,962,620
1997(2)	\$1,228,710	\$320,000	\$1,548,710	\$6,511,330
1998(3)	\$1,043,600	\$135,000	\$1,178,600	\$7,689,930
Total	\$4,730,629	\$2,959,301		

(1) - budgeted amount shown here; total of \$1,173,972 spent through 10/31/96
(2) - budget submission (not approved by Board as of 10/31/96)
(3) - projected amount according to ASAP Team

Figure 4
Annual ASAP Costs by Budget Category

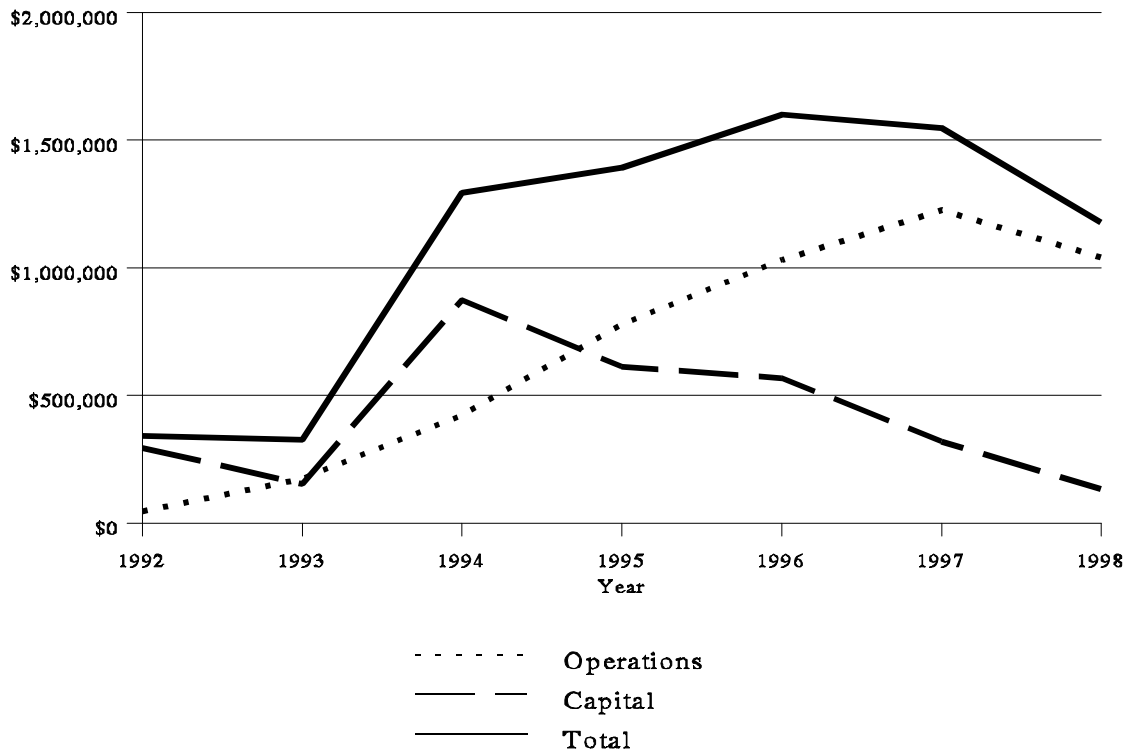


Table 2
Annual ASAP Costs by Use of Funds (Categorized by the ASAP Team)

Year	Operations	Development	Total Annual	Cumulative Total
1992	\$0	\$343,332	\$343,332	\$343,332
1993	\$0	\$418,395	\$418,395	\$761,727
1994	\$86,899	\$1,210,360	\$1,297,259	\$2,058,986
1995	\$463,100	\$940,300	\$1,403,400	\$3,462,386
1996*	\$515,900	\$1,096,300	\$1,612,200	\$5,074,586
1997*	\$863,800	\$684,900	\$1,548,700	\$6,623,286
1998*	\$1,043,600	\$135,000	\$1,178,600	\$7,801,886
Total	\$2,973,299	\$4,828,587		

*estimated

Board Oversight and Office of Inspector General Involvement

Figure 5
Annual ASAP Costs by Use of Funds



*estimated

The Staff Director for Management, the senior Board officer with administrative oversight of the Board's operations and resources, including ASAP, reports directly to the Administrative Governor. As part of his oversight of ASAP, the staff director initiated a high-level mid-term management review of the project during the summer of 1995. The review team, composed of a cross-functional group of senior Board staff, focused on customer satisfaction, adequacy of project staffing, project costs and schedule, and technical architecture. In August 1995, the review team issued a report to the staff director which identified several areas of concern: (1) difficulty in establishing a baseline for deliverables, budget, and schedule; (2) few productivity gains and mixed customer satisfaction; and (3) an overlap in roles and responsibilities of the ASAP staff. The report also made four recommendations designed to provide greater ownership of the project by functional directors within OSDM, increase end-user involvement, and ensure a cost-effective implementation process.

The ASAP team has sought and received the OIG's involvement since its inception. Two audit managers provided audit support to the Board team that completed the original feasibility study in 1991. During implementation of the Oracle financial software, an EDP auditor served as OIG liaison and provided regular input to the ASAP project manager. In April 1994, the OIG briefed the staff director on the results of an OIG assessment of the ASAP project. The purpose of the assessment was to ensure that proper internal controls were in place and that project management was effective. The review concluded that, though the OIG was impressed with recent management actions to correct problems, additional actions were needed, including establishing a management commitment to use ASAP as a vehicle for business process reengineering.

In late 1994, the OIG completed an internal control risk evaluation of the ASAP system, including ASAP organization and staffing, project management approach and scheduling, configuration and change control practices, environmental software integrity, system administration procedures, and user acceptance testing procedures and results. As a result of the review, the OIG made three suggestions to the project manager for strengthening environmental controls and establishing compensating controls for the purchasing application. In addition, the OIG recently formed a review team to provide assistance to the ASAP team in preparing and carrying out the test plan for the PeopleSoft implementation. This review team will also perform independent testing of the payroll application to ensure that the system contains proper security, internal controls, and audit trails.

OBJECTIVES, SCOPE, AND METHODOLOGY

We conducted audit fieldwork from August through October 1996. Our audit objectives were to (1) document the project status as of July 31, 1996, and assess the reasonableness of future project direction, and (2) assess the efficiency and effectiveness of ASAP implementation at the strategic and project management levels. Our

audit was designed to develop a "snapshot" of the ASAP project, identifying the milestones that have been achieved, the project costs to date, and the current ASAP configuration in terms of functionality, hardware, and software. Although we reviewed the project history and identified past problems with implementation, our focus was on identifying impediments to the project's future success and proposing corrective actions to help ensure an efficient and effective transition to the new system.

To accomplish our audit objectives and obtain a complete project history, we reviewed the project from inception in 1991 through implementation as of July 1996. We also reviewed current project plans and identified initiatives required to implement remaining components and achieve a "steady-state" status. Specifically, we reviewed project documentation, including implementation and strategic plans, project management briefings, status reports, and contracts and purchase orders for associated hardware, software, and integration. We interviewed the previous Administrative Governors, the Staff Director for Management, and all members of the ASAP team. Because the project affects all of the Board's administrative areas, we met with the division directors and staff in OC, IRM, HRM, and SS to determine their responsibilities for development and implementation of the modules in their respective functional areas. We also interviewed division directors, or their designees, and division administrators in all remaining Board divisions and offices to identify their input into project development and their level of satisfaction with implementation to date. Finally, we met with representatives of two Reserve Banks and two government agencies that have recently implemented (or are in the process of implementing) new administrative systems to discuss their experiences and identify any lessons learned.

To obtain cost and budget data, we reviewed financial reports, vendor invoices, and payment records. Because our scope included costs incurred from 1992 through 1996, we obtained financial information from the FMS and ASAP systems. Although our audit objective was to document the project's status as of July 31, we were able to obtain cost data as of October 31. Because of the inherent difficulty in documenting historical project costs given that the Board does not use project accounting as a management tool, and because our audit objective was not to perform a detailed cost analysis and verification, our focus was on assessing the reasonableness of cost and budget data reported by the ASAP team. We performed limited testing of financial transactions related to the ASAP project; we did not perform a detailed assessment of the reliability of any statistics from the FMS or ASAP systems. Finally, because we did not review the underlying rationale for the original decision to replace the Board's mainframe system, we did not attempt to project system costs had the mainframe system been retained or to measure productivity gains resulting from the conversion to ASAP. Our audit was conducted in accordance with generally accepted government auditing standards.

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Over the life of the project, the ASAP team has made strides toward achieving the project's stated objective of meeting the Board's current and future administrative information requirements. Specifically, the team has developed a strategic plan to take the project through implementation and into a steady-state status. To achieve the plan's goals, the team has selected and implemented, or is implementing, software that will position the Board's core administrative systems to move into the twenty-first century. The software that has been selected will facilitate compliance with recent legislation concerning EFT transactions, eliminate concerns about the "year 2000" transition, and be able to take advantage of Internet technology. The project is the first distributed processing platform that can be accessed Boardwide, and it required significant resources to address network and communications infrastructure challenges. In addition, the ASAP team is made up of a capable staff, and users we talked to were generally complimentary of the team's responsiveness and cooperation. The team has overcome difficulties outside its control which have caused substantial project delays, including a vendor protest early in the initial procurement process.

Notwithstanding these achievements, we are concerned whether the team can meet its strategic objectives in an efficient and effective manner. Specifically, we concluded that

- senior management involvement has been insufficient;
- processes for tracking cost, schedule, and project status are not effectively integrated;
- the project's schedule for the next two years is extremely ambitious;
- functional users are not fully involved and business processes are not being reengineered to take advantage of opportunities to streamline processes;
- communication processes with end users have not been effective;
- business resumption planning has not been finalized; and
- change control processes have not been formalized.

Our review of reference literature and discussions with other organizations have shown that several of these issues, particularly the low level of senior management support and the lack of sufficient user involvement are common problems in information technology projects. We are especially concerned, however, that these issues had surfaced during previous reviews but were not adequately addressed. If left unresolved, we believe these problems will cause additional project delays and prevent a smooth transition to the new administrative architecture.

We recognize that the project's current short-term focus is the implementation of the initial suite of human resource applications. We believe this should remain the ASAP team's primary concern to ensure a successful transition from the mainframe system. Our recommendations address longer-term project management issues and are thus focused on the remaining development and implementation efforts once the core human resource applications go into production. However, we believe that several recommendations— particularly recommendations 1, 4, and 5—can be implemented immediately to address potential obstacles to meeting the June 30 goal. Our recommendations are designed to establish an organizational oversight and reporting structure that will provide a framework for more effective management oversight, provide more meaningful executive-level information on the complete project, foster greater involvement with functional and end users, increase opportunities for business process reengineering, and help ensure the integrity of systems that have already been, or will be, implemented.

- 1. We recommend that the Board strengthen senior management commitment to the project by (1) developing a project charter, approved by the Administrative Governor, for the remaining development and implementation efforts, (2) establishing a management steering committee with oversight responsibilities, and (3) reevaluating the project's organizational placement.**

Strong, sustained, and visible support by senior management is one of the critical factors in successful project implementation. Senior management can provide support by setting the general project direction, managing the organization's political environment, establishing system modernization as a high priority within the organization, and overcoming skepticism about the value and likely success of the project.

Our review showed that, although senior management has been supportive of ASAP, no one at the senior management level has positioned himself or herself as a sustained "project champion." That is, the previous administrative governors stayed informed on the project's status and provided input or resolved issues when requested, but they were not as proactive in setting the project's direction and ensuring the project's full support throughout the Board as we believe they needed to be. Although the staff director has served as the project sponsor and has been actively involved with the project, we believe that higher-level support is required for a project of such magnitude and with such Boardwide consequences. The senior-level support is essential to ensure that the division directors within the OSDM take full ownership of their functional pieces of the project (as discussed in recommendation 4) and that all Board divisions are cognizant and supportive of the project's objectives and the effects on their divisions' operations.

Because ASAP cuts across the Board's divisions, we believe the Administrative Governor is in the best position to serve as project champion and that her active involvement is critical to overcoming divisional boundaries and achieving success in the remaining development and implementation efforts. During our audit, we found that division directors outside OSDM have had limited involvement with ASAP. We recognize that administration is not these directors' primary Board function and that their focus is on their respective mission areas. However, without the division

directors' full support, the ASAP team will face increased difficulty in overcoming natural user resistance to change, obtaining end-user participation in the remaining development and implementation efforts, and resolving issues that require procedural or policy changes. In addition, the division directors may have information and reporting needs that will not be met because they have not been actively involved in the project.

Having the Administrative Governor formally approve a project charter for the remaining ASAP development and implementation efforts would be an important first step in strengthening management commitment. The charter should discuss the project's goals and objectives, explain the relationship and degree of integration between ASAP and ASAP-related systems, identify expectations regarding business process reengineering, establish the project's performance measures, and establish overall project management authority and responsibilities. Acting as more than merely another piece of project documentation, the charter will serve as a visible method of communicating the governor's expectations to all Board divisions and will allow the ASAP team to share the project's strategic vision with other divisions and describe more clearly how the project will relate to and support the divisions' own strategic plans.

In addition to establishing a project charter, the Board can strengthen senior management involvement with the project by establishing a management steering committee to provide project oversight, set project direction, review performance, and resolve conflicts. The ADSG, whose responsibilities included coordinating and managing the development and operation of systems in the administrative area, originally filled part of this function. However, the ADSG has been disbanded, and other committees that might fulfill this role—the Automation Policy and Programs Committee (APPC) and the Senior Management Council (SMC)—have had limited involvement with ASAP⁸. To resolve policy issues and provide some project oversight, the ASAP project manager created an informal policies and procedures committee. This committee, however, consists solely of assistant division directors within the OSDM and does not include representation from the end user community. We believe end-users also need to be involved to ensure that all requirements are sufficiently addressed during system development and to promote user acceptance and ownership during implementation.

We envision a management steering committee that includes representatives from across the Board who have the authority either to make decisions regarding the project or to

⁸The APPC, chaired by the staff director, is a senior management committee made up of the Director of IRM and the directors of the three heaviest automation resource user divisions. The APPC is overseen by the Administrative Governor and is responsible for guiding, developing, and executing the automation budget; determining the priorities among automation projects; overseeing all automation activities at the Board, including those in user divisions as well as those under IRM; and reviewing and approving the Board's annual long range automation plan. The SMC, also chaired by the staff director, is made up of the Assistant to the Board for Public Affairs and six division directors on a bi-annual rotating basis. The SMC makes decisions for, as well as recommendations to, the Board on all administrative matters exclusive of data processing.

bring issues directly to higher management for prompt resolution. Committee leadership and accountability need to be established early on to help ensure the committee's success, and the project charter discussed above may be a good method of defining the committee's roles and responsibilities. The committee could be chaired by the staff director in his role as the project sponsor and the senior Board officer over the administrative functions, or the chair could rotate among the committee members. Having the project manager serve as a committee member might also be valuable, as he could act as the focal point for providing integrated, executive-level information regarding the project's cost, schedule, and functionality (see recommendation 2).

In addition to establishing a management steering committee, we believe the Board needs to address the proper organizational placement for the ASAP project. In our opinion, the project's current placement in the Office of the Controller has fostered the perception that the project is an "OC system." Such a perception could contribute to the lack of full participation by other divisions or prevent their understanding of the system's importance for the Board's entire administrative operations. In addition, the project's placement has not provided the project manager with the proper level of influence or decision-making authority, particularly for development and implementation issues that cross Board divisional lines. The current project manager also has significant responsibilities within the OC that are unrelated to the project but that could create conflicts in establishing priorities.

One option to help alleviate this situation would be to give the project its own budget authority and cost center, perhaps as a part of the OSDM, but have the project report directly to the newly created management steering committee. The project would thus be placed at a higher organizational level for budgeting and operational issues, with guidance coming down from, and reporting responsibilities going up through, the management steering committee. We believe this or a similar organizational framework would highlight the importance of the project and foster greater user participation.

- 2. We recommend that the Administrative Governor ensure that processes are implemented to (1) integrate and track the cost, schedule, and functional status of ASAP and ASAP-related systems over the remaining life of the project, and (2) provide Board members with executive-level information that will assist them in monitoring the Board's investment and progress toward achieving ASAP's strategic objectives.**

To facilitate effective oversight of the ASAP project, which spans multiple years and cuts across Board divisions, Board members and other senior managers need integrated information regarding system cost, schedule, and functional status to help in monitoring progress against plans and making decisions about the project's future. Effectively coordinating and managing the integration of ASAP and ASAP-related systems, from development through implementation and maintenance, will be critical in realizing the full benefits of having a common administrative database. We believe that the expansion of ASAP into a multiyear project—with "ASAP-related" systems being managed

and funded outside of the OC—calls for new processes to help ensure that Board decision makers have meaningful and complete information to establish priorities, control costs, and measure results efficiently and effectively.

Consistent with the Board's budget process, the cost, schedule, and functional status of ASAP have primarily been projected and tracked incrementally on an annual basis. During 1992 and 1993, ASAP costs were captured as part of the OC's "program direction" cost center, and some key direct costs, such as personnel expenses, were reflected as general OC costs rather than ASAP development costs. Recognizing the need to account more clearly for ASAP expenses, the OC established ASAP as a separate program and cost center in 1994 and transferred key ASAP staff to this new program during 1994 and 1995. We commend the OC and the ASAP team for taking this action, even though the project manager's time continues to be fully charged to OC program direction instead of being appropriately allocated between his general OC and his ASAP-specific duties.

At different points in the system implementation process, the ASAP team has also prepared various status reports summarizing the current implementation status and the potential effects on the upcoming budget year. These reports do not, however, contain integrated cost, schedule, and functionality data for the complete set of ASAP and ASAP-related systems, nor do they provide a consistent baseline for tracking progress across the life of the project. For example, the 1994 ASAP budget submission and accompanying summary reports included a new facilities management system for SS and a new user charge system for IRM within the scope of the ASAP project. The ASAP team purchased a facilities management software package for SS during 1994 and worked with SS to implement a basic system. However, SS and IRM have since assumed funding and project management responsibility for their respective systems, and the role of the ASAP team has shifted to helping these divisions integrate their related systems with the ASAP applications. The dollars that SS and IRM are spending on these ASAP-related systems are being captured in their respective budgets and cost centers, and are not being tracked as part of the Board's full investment in ASAP. In addition, IRM spent about \$167,000 to purchase the Sun minicomputer as a replacement for the original equipment, and this expenditure was recorded as an improvement to the Board's automation infrastructure rather than as an expense related to ASAP. We believe that the Board's current budgeting and reporting process, which lacks a formal mechanism for consolidating each division's plans and budgets on a project basis, is inadequate to provide the executive information needed to manage strategically the Board's full investment in automating the complete administrative function.

We recognize that the ASAP team has recently taken more of a life-cycle view of the project's cost. During 1995, in response to a request from the ASAP mid-term review team for cost and schedule data, the ASAP team prepared its first official estimate of system "life-cycle" costs. The ASAP team recently updated these cost data and included the data as part of a September 1996 information briefing to the Administrative Governor (see table 2, page 12). We found that the costs they presented for 1992 through 1996 are generally consistent with the actual cost data reflected in table 1 for those same years. We also found, however, that system integration turned out to be

more costly than anticipated in early estimates and, as discussed in recommendation 3, that the expected level of functionality to be achieved has generally declined while the anticipated system implementation schedule has been extended. Because the cost data are not integrated with other information on project schedule and functionality, we are unable to assess the reasonableness of the cost estimates for 1997 and beyond.

Specifically, it is difficult to determine exactly what ASAP and ASAP-related systems are included in these cost estimates, what underlying assumptions have been made in preparing the estimates, what level of functionality will be provided by the systems, and when the different components will become fully operational.

We believe that the Administrative Governor should ensure that processes are implemented to provide an integrated view of the cost, schedule, and functional status of ASAP and ASAP-related systems over the remaining life of the project. Given the current estimates that the Board will invest nearly \$8 million in ASAP through 1998, we believe it is important for senior management to understand clearly what level of functionality the Board will receive for that investment and when each of the ASAP and ASAP-related systems will be operational. The Oracle financial software can track expenses against a project code, even when those expenses are being charged for budget purposes against different divisions and cost centers, which would allow the Board to capture ASAP development costs funded by other divisions. Providing the Board with executive-level information on ASAP costs, schedule, and functionality will establish a more systematic basis for measuring progress toward achieving ASAP's strategic objectives.

3. We recommend that the Administrative Governor review the ASAP project schedule for remaining development and implementation efforts to ensure that sufficient time is provided to analyze user requirements and determine the extent that software functionality matches current business practices, given current staffing levels and work in process.

The ASAP project design document, prepared in June 1992, divided the project into two phases and anticipated that a minimum of two years would be required for full implementation of the financial and support services applications in phase one and the human resource management applications in phase two. Since the project's inception, the scope of applications included under ASAP has varied, and the project schedule has been extended as the ASAP team encountered challenges with the automation infrastructure and reaching consensus on database and application system design.

The ASAP team has prepared an ambitious work schedule for the next two years. In 1997, the ASAP team plans to implement the first phases of the human resource management software. Enhancements to the Oracle financials applications planned for 1997 include implementing a management information system, developing EFT and Electronic Data Interchange capabilities, providing electronic routing and receiving capabilities, and increasing the use of the Board's intranet as a vehicle for collecting and disseminating information. The ASAP team also intends to begin determining requirements for the travel and fixed assets application software in 1997. In 1998, the

ASAP team plans to complete the final phase of the PeopleSoft implementation, perform software maintenance and upgrades for the Oracle and PeopleSoft applications (including a graphical user interface version of Oracle financials), develop a management information system for PeopleSoft, implement application software for the travel and fixed assets functions, review additional automation of the budgeting and accounts receivable functions, and provide interfaces to other administrative applications.

While we commend the ASAP team for attempting to implement their strategic vision, we question whether the current schedule is too ambitious. In our opinion, the schedule may not provide sufficient time to define user requirements fully, determine the functionality of the intended software applications, and redesign business processes to match the software or custom-develop the desired functionality. Experiences gained in implementing the financials and in the initial stages of implementing PeopleSoft illustrate how attempting to do too much simultaneously can negatively affect the project schedule and the level of functionality that is actually achieved. Specifically, the ASAP team discovered that, because of the broad functional scope of the project, the process analysis was more difficult and more consensus was needed across divisions and functions throughout the implementation.

Use of commercial off-the-shelf software, with minimal modification, requires detailed analysis of how closely the software corresponds to the current business process. The decisions must then be made either to custom-develop the desired functionality, including determining how to insulate these customizations from future software releases, or to reengineer business processes. Overcoming the challenges of consensus building to reach decisions and resistance to changing current business practices has proven to be a time-consuming process in the project thus far. As a result, the financial and human resource management implementations have been placed on a phased approach, not all desired functionality has been adopted in modules already placed into production, and certain functions that were originally envisioned within the scope of ASAP are being developed by the responsible functional areas.

We question whether sufficient time and resources are allotted in the latest project schedule to prioritize future automation efforts, perform the business process analyses, and design software functionality for the remaining ASAP applications. The Administrative Governor should review the schedule and ensure that the plan reflects the goals and objectives established by the project charter. In our opinion, a more realistic project schedule would allow the ASAP team to use its resources more effectively to complete the software versus business process analysis, and reach decisions where gaps are identified. It may also lessen the risk of ASAP staff burnout or turnover that could arise given the limited resources available and the demand for Oracle and PeopleSoft expertise in the marketplace. Finally, a more realistic project schedule that clearly establishes resource needs is an essential step in building the integrated executive-level project management information discussed in the previous recommendation.

4. We recommend that the Staff Director for Management designate project leaders from the functional areas to co-lead, with the ASAP team leader,

the implementation of the remaining ASAP systems, modules, and enhancements with the objectives of (1) achieving full functional user involvement in and acceptance of the ASAP projects and (2) promoting business process reengineering.

To ensure that users are actively involved in and fully committed to achieving a project's goals and objectives, functional users need to be active members of the project management team. By establishing the functional users as "stakeholders" in project management, the project should result in enhanced policies and procedures and better communication and coordination among end users, managers, and technical staff. Active functional user involvement will also foster increased ownership and commitment to implementing ASAP so that it meets the Board's goals and business needs as efficiently and effectively as possible.

An OC team, composed mainly of technical staff, presently leads the implementation effort, even though ASAP's mission is to meet the administrative information requirements of all OSDM divisions and the clients they serve. We found that, though functional area management provide input and guidance and functional staff participate in the day-to-day implementation activities, the functional areas have not played an active part in the leadership and management of the project. For example, we found that HRM has not formally designated a project leader to serve actively with the ASAP team leader during the PeopleSoft implementation, even though HRM staff will be a prime user of the system. Because of other priorities, HRM management has not made the PeopleSoft implementation a top priority and has restricted HRM staff involvement in the project. HRM managers do not regularly attend the biweekly implementation strategy meetings, and we are concerned that a PeopleSoft contractor, rather than an HRM manager, plays a major leadership role in addressing many of the user issues related to implementation. The mid-term review conducted during 1995 noted similar concerns regarding the lack of collective ownership of the project by the OSDM division directors and recommended that the directors hold biweekly meetings to discuss and resolve cross-divisional integration issues. Although the directors may meet to receive project status briefings and discuss issues, we believe that a dedicated functional project leader is required to complete the project's implementation efficiently and effectively.

During our visits to Federal Reserve Banks and government agencies implementing similar cross-departmental systems, we found that functional project managers led or co-led the project implementations. We recognize that divisions have other competing priorities; nonetheless, we believe that ASAP efforts, such as the PeopleSoft implementation and the planned implementation of the travel and fixed assets modules, warrant more functional management involvement and commitment. Without a total commitment to these projects by the functional user, the new capabilities and enhancements offered by these systems may not be used to their fullest extent, and the functional user's needs may not be adequately addressed.

For each significant system, module, or enhancement implementation effort, we believe the division affected by the automation effort should designate a project leader who is

senior enough to make business decisions to manage the functional aspects of the implementation. The functional project leader could co-lead with the ASAP team leader, who would be responsible for all technical issues. The ASAP project manager could remain in charge of the overall project and be responsible for resolving higher-level or conflicting functional and technical issues.

The involvement of functional leadership in the ASAP implementation efforts may also enhance efforts to reengineer the Board's business processes. We noted that, in general, business reengineering has not been a top priority during ASAP's development and implementation. However, given the recent initiatives in government and industry to improve efficiency and effectiveness, we believe business process reengineering should become an integral ASAP objective. Although there have been some positive changes in the Board's processes as a result of ASAP—including the introduction of credit cards and the removal of encumbrance accounting—these changes were not the result of a comprehensive pre-automation business process review. We believe several opportunities to improve Board processes, including benefits and budget processing, have been missed and that a detailed business process analysis, performed before ASAP modules were implemented, could have identified other areas to improve.

The ASAP team does not view itself as responsible for leading reengineering efforts, and we agree that the functional users, who are most familiar with organizational policies and procedures, are in a better position to effect change. By including the functional users in the project management team and enabling them to have an ownership stake in the system being implemented, the ASAP team will be in a better position to help meet the reengineering objectives that the Administrative Governor has outlined in the project charter (see recommendation 1). We believe that future ASAP efforts, including travel, fixed assets, and the remaining phases of PeopleSoft, will present additional opportunities to review, streamline, and improve current Board practices.

5. We recommend that the ASAP team develop and implement a communication plan and marketing strategy to ensure that end users are adequately involved in and remain informed about the development and implementation of remaining ASAP modules and planned enhancements.

The successful implementation of any information system project requires continuous end-user involvement and commitment, because the end users are the ones who ultimately input data and use the information managed by the system. The ASAP team has attempted to involve end users, primarily the division administrators, in the Oracle and PeopleSoft implementations in several ways. The team conducted meetings designed to solicit input regarding user requirements, held demonstrations of system capabilities, and conducted end-user training. However, many end users indicated they were frustrated with the implementation process. For example, they thought that meetings with the ASAP team often presented decisions that were already made rather than opportunities for two-way dialogues regarding processing issues. Many users felt their suggestions, questions, and concerns were ignored or not considered important by the implementation team. We believe end-users may have this perception because the

ASAP team has not developed an adequate feedback mechanism to let the users know the disposition of their input.

Some users also expressed frustration with the reporting capabilities of the Oracle financials system and consequently maintain ancillary systems to meet their information reporting needs. In addition, many users of the financials system do not like the character-based interface and believe the system to be over complex and unwieldy to use. These complaints may result from end users having expectations that differed from the system's actual capabilities when it was initially discussed and subsequently implemented. The ASAP team plans to address these issues through enhanced reporting capabilities and an upgraded user interface. We believe that effectively marketing these efforts will help alleviate user frustration.

To address the end users' concerns regarding the ongoing PeopleSoft implementation, the ASAP team has developed a communication plan that includes articles in *Interest Bearing Notes* and *Across the Board*, division director and division administrator meetings, and informational memoranda. However, much of the plan is geared to Board employees in general rather than to specific end-user groups. End users we talked to seemed generally unaware of the status of the PeopleSoft development and implementation efforts, and some users were not sure if they had the necessary local hardware and software to run the client portion of the software. This uncertainty regarding PeopleSoft, coupled with the division administrators' negative experiences associated with the financial system implementation, has caused the administrators to be apprehensive of the new human resource management system.

We recognize that users often have a natural resistance to change, making it important for the ASAP team to ensure that end users are adequately involved throughout the development and implementation processes and that they remain continually informed as to the project's status to help prevent negative perceptions of future ASAP efforts. We believe the ASAP team appreciates the importance of including end users in the process, as shown by their attempts to involve users through joint application development sessions, "brown bag" lunch meetings, and system demonstrations. The team also plans to conduct user surveys to assess the current level of user satisfaction and help set future project direction. However, we believe the level of negative end-user feedback we received concerning ASAP implementation indicates that the ASAP team needs to review its communication process and its marketing strategy to help improve relations with end users. One method to accomplish this for the remaining development and implementation efforts is to form a focus group of division administrators that could provide system requirements from a user perspective, participate in software reviews, and become active proponents of the system's merits. We also believe that additional commitment by senior Board management (recommendation 1) and greater project ownership by the functional areas (recommendation 4) will help foster greater acceptance of the system throughout the Board.

6. We recommend that the ASAP team complete development and testing of their Business Resumption Plan (BRP) to ensure all potential contingent situations are addressed.

The ASAP team's responsibilities include maintenance of the integrity of the administrative systems by providing adequate contingency and backup/recovery capabilities. However, based on our review, we are concerned that ASAP is currently unable to recover from a disaster in the Martin Building, which houses the ASAP hardware, the weekly backup tapes, and the system tapes and documentation. We found that the BRP—which describes the strategy for ASAP's recovery—is not finalized. In addition, the ASAP team has not tested the BRP to ensure that the equipment located at the Baltimore Branch, which will be used as the recovery site in the event of a contingent situation, will handle the anticipated workload and that the contingency procedures are adequate to restore the system within required timeframes. We noted that plans are under discussion to obtain additional backup support from IRM by using the main-frame's automated off-site storage capability, and we encourage the ASAP team to incorporate this capability in the development of the BRP. As the team finalizes the BRP, we also suggest they include, at a minimum, contact lists (including alternates); a prioritized list of applications to be recovered including relevant files, programs, and report distribution lists; and the required equipment and supplies.

7. We recommend that the ASAP team formulate an integrated, comprehensive change control process to ensure that programmer/analysts' access to application and system software and data is properly controlled.

The ASAP team is responsible for managing all ASAP-related software and data. This responsibility includes the proper separation of the production, testing, and development environments for the application software. During our review, we found that the ASAP team does not have formal change or version control procedures for the software that has been placed into a production environment. Specifically, we noted the following:

- The programmer/analysts have the capability to move changed modules from the test in the production environment. Although the database administrator normally performs this function, allowing the programmer/analysts to have access to production data could result in inadvertent changes to the software.
- The programmer/analysts use e-mail messages rather than a formal turnover sheet to notify the database administrator that a module is ready to go into production. The use of a formal turnover sheet provides an audit trail for tracking the approvals and dates and protects against unauthorized changes
- The ASAP team maintains older versions of the modules on the system, rather than archive them, and does not adequately identify the most current software version. This could lead to confusion among programmer/analysts in ensuring that correct software version is used for program updates.

- End users have had limited involvement in the testing process of new software versions. For example, we were told that when a change is made, one member of the ASAP team performs testing by signing on as various users in the processing chain rather than having actual end users perform the testing function. We also noted that user sign-off, indicating acceptance of module changes, is not documented. Without end-user involvement, the ASAP team does not have adequate assurance that all transactions have been tested before the new software version is placed into production.

We believe that formal change controls for the ASAP environment are needed to maintain software and data integrity. Formal change controls normally include approval of the application's design and development, end-user testing and acceptance of the finished product, communication between the application support unit and the end-users, and movement of the application between the test/development and production environments. By formulating an effective change control process, the ASAP team can ensure that software and data access are properly controlled and that users have an active role in testing and accepting the system.

ANALYSIS OF COMMENTS

We provided a draft copy of this report to the Staff Director for Management for his formal comments. His response, which he coordinated with the Administrative Governor, is included as appendix 1 to this report (see page 29). The response indicates general agreement with the seven recommendations and discusses actions that have been or will be taken to implement the recommendations.

Specifically, the response states that the Administrative Governor will take a more active role in the project and will receive periodic briefings, demonstrations, and project status reports from the staff director and the ASAP team. The Administrative Governor has also directed that the reporting for the automation in the administrative area be consolidated for her review and that the proposed strategic direction of all administrative automation initiatives, including ASAP, be presented periodically to her for review. The response also states that the AD SG has been reconstituted and formally chartered to fulfill the role of a management steering committee. The AD SG's charter, approved by the Administrative Governor, directs the AD SG to coordinate and oversee activities related to the development and maintenance of all automated administrative systems, including those activities being addressed by ASAP.

Regarding the recommendations directed to the Staff Director for Management and the ASAP team, the response states that the staff director will formally designate a senior representative from each functional area to actively work with the ASAP project manager and that the staff director has directed the ASAP team to provide all division directors an executive level status report on the project at least quarterly. In addition, the ASAP team (1) plans to incorporate a formal communication strategy for end users in all future development and implementation efforts, (2) has completed the Business

Resumption Plan and begun testing efforts, and (3) has developed a change control process, which is in place and operating and in the process of being formally documented.

APPENDIXES

Appendix 1 - Divisions' Comments

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM

Office Correspondence

Date January 29, 1997

To Office of Inspector General **Subject** Response to Audit Report

From S. David Frost _____

We are pleased to respond to the OIG's Report on the Audit of the Administrative Systems Automation Program. Of the seven recommendations included in the report, one was directed to the Board and two were directed to the Administrative Governor. The remaining recommendations were directed to either me as Staff Director for Management, or the ASAP project team.

In her role as Administrative Governor, the Vice Chair has asked that I incorporate her responses to those recommendations addressed to the Board and the Administrative Governor (Recommendations 1-3) in this consolidated submission.

Appendix 1 - Divisions' Comments

1. We recommend that the Board strengthen senior management commitment to the project by (1) developing a project charter, approved by the Administrative Governor, for the remaining development and implementation efforts, (2) establishing a management steering committee with oversight responsibilities, and (3) re-evaluating the project's organizational placement.

The Administrative Governor concurs with the thrust of this recommendation. She expressed a concern that this concurrence not be taken as a precedent that she or future Administrative Governors should be involved in great detail in the oversight of all developmental projects, recognizing that such an approach would be infeasible in view of Board Members' responsibilities. In this specific instance, however, she sees the ASAP project as an opportunity to become more familiar with the Board's administrative practices and procedures as well as its project management practices. Thus, she expects to receive somewhat detailed briefings, demonstrations, and status reports on schedule and costs. The Staff Director for Management and staff will comply fully.

The Administrative Governor concurs in principle with the three specific suggestions offered in the report. The Administrative Data Steering Group (ADSG) has been reconstituted and formally chartered to fulfil the role of management steering committee, even though the members of the ADSG have been active participants throughout the ASAP project. With regard to the recommendation to charter the ASAP project, the Vice Chair agrees

Appendix 1 - Divisions' Comments

that a charter is needed but considers it more appropriate to include the ASAP project in the forementioned charter of the AD SG. The charter is approved by the Administrative Governor and directs the AD SG to coordinate and oversee activities related to the development and maintenance of all automated administrative systems, including those being addressed by ASAP. The third recommendation addresses reevaluating the organizational placement of the ASAP staff. This issue will be addressed once all major new software systems are deployed and stabilized.

2. We recommend that the Administrative Governor ensure that processes are implemented to (1) integrate and track the cost, schedule, and functional status of ASAP and ASAP-related systems over the remaining life of the project, and (2) provide Board members with executive-level information that will assist them in monitoring the Board's investment and progress toward achieving ASAP's strategic objectives.

The Administrative Governor concurs. The reporting for the several elements of automation in the administrative area will be consolidated and reviewed on a regular basis by the Administrative Governor.

3. We recommend that the Administrative Governor review the ASAP project schedule for remaining development and implementation efforts to ensure that sufficient time is provided to analyze user requirements and determine the extent that software functionality matches current business practices, given current staffing levels and work in process.

Appendix 1 - Divisions' Comments

The Administrative Governor concurs. In keeping with the philosophy set out in response to recommendation 1 above, she has directed that the proposed strategic direction of all administrative automation initiatives, including ASAP, be presented periodically to her for review, direction and/or approval.

4. We recommend that the Staff Director for Management designate project leaders from the functional areas to co-lead, with the ASAP team leader, the implementation of the remaining ASAP systems, modules, and enhancements with the objectives of (1) achieving full functional user involvement in and acceptance of the ASAP projects and (2) promoting business process reengineering.

The Staff Director concurs. As the audit team was advised, the Staff Director and ASAP team believe that there has been appropriate functional user involvement in all phases of the project. With regard to future development and implementation, the Staff Director will formally designate a senior representative from each functional area to actively work with the ASAP project manager to ensure proper direction in that area. He has also directed ASAP staff to provide to all Division Directors, not less often than quarterly, an executive level status report on ASAP to discuss progress, problems, benefits, etc.

Appendix 1 - Divisions' Comments

5. We recommend that the ASAP team develop and implement a communication plan and marketing strategy to ensure that end users are adequately involved in and remain informed about the development and implementation of remaining ASAP modules and planned enhancements.

Concur. The preparation of a formal communication plan will become an integral part of all future development and implementation efforts.

6. We recommend that the ASAP team complete development and testing of their Business Resumption Plan (BRP) to ensure all potential contingent situations are addressed.

Concur. The ASAP Business Resumption Plan has been developed and test efforts are currently underway. As is our normal practice, we will share the results of the test with the OIG staff.

7. We recommend that the ASAP team formulate an integrated, comprehensive change control process to ensure that programmer/analysts' access to application and system software and data is properly controlled.

Accomplished. An appropriate change control process has been developed and is now in place and operating. Following completion of formal documentation, it will be presented to the OIG for review and comment.

Appendix 2 - Principal OIG Contributors to This Report

- ▶ Bill Mitchell, Auditor and Auditor-in-Charge
- ▶ Beth Coleman, Senior Auditor
- ▶ Emily Drake, EDP Auditor
- ▶ Dave McCue, Auditor
- ▶ Dan Thompson, Auditor
- ▶ Pamela Debnam, Senior Secretary
- ▶ Patty Kelley, Audit Manager
- ▶ Barry Snyder, Assistant Inspector General for Audits